South Fork Owyhee River Subbasin Assessment and Total Maximum Daily Load

Prepared for the State of Idaho

by
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Appendix E. Photos

Figure 1. Water Diversion at 45 Ranch, September, 1999. South Fork of the Owyhee River.

Figure 2. River Below 45 Ranch Hay Fields, September, 1999. South Fork of the Owyhee River.

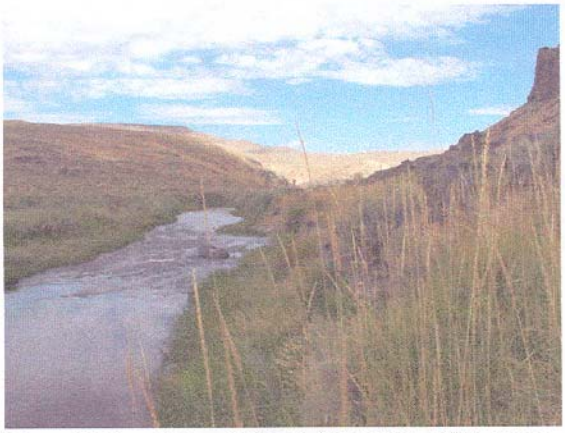


Figure 3. River Below 45 Ranch, September, 1999. South Fork of the Owyhee River.

Figure 4. Large Pool Below 45 Ranch, September, 1999. South Fork of the Owyhee River.

Figure 5. Bull Camp, Idaho. River Terraces. May, 1999. South Fork of the Owyhee River.

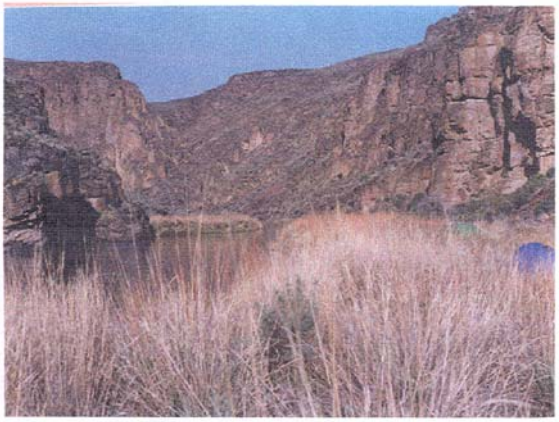


Figure 6. River Terraces near Sentenial, Idaho. May, 1999. South Fork of the Owyhee River.

Figure 7. Canyon Area Above 45 Ranch, September, 1999. South Fork of the Owyhee River.

Figure 8. Riffle Area at the El Paso Pipeline Crossing, September, 1999. South Fork of the Owyhee River.

Figure 9. El Paso Pipeline, Eroding Bank and Depositional Area. South Fork of the Owyhee River.

Figure 10. Island Development at El Paso Pipeline. August, 1999. South Fork of the Owyhee River

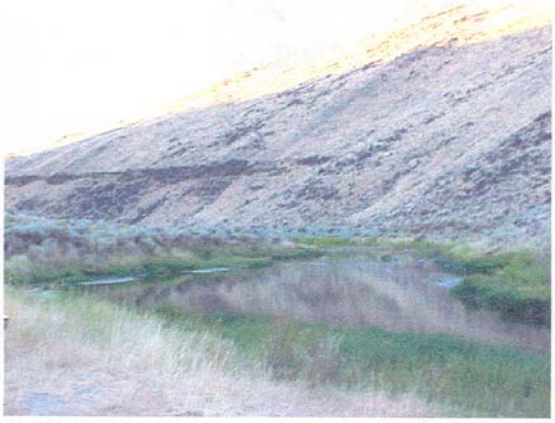
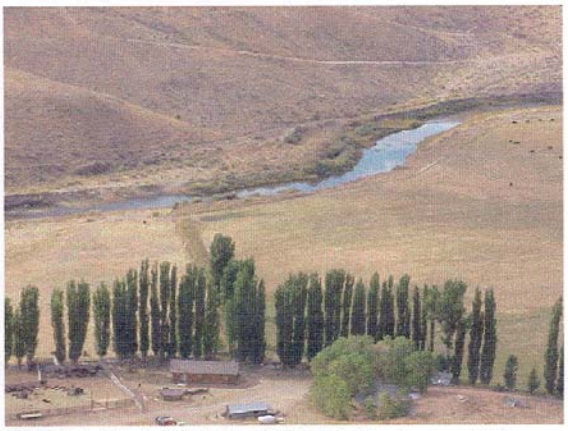


Figure 11. Riparian Area at El Paso Pipeline. August, 1999. South Fork of the Owyhee River.

Figure 12. Canyon Area near Ida-Nev Stateline. May, 1999. South Fork of the Owyhee River.

Figure 13. El Paso Pipeline Site, September, 1999. South Fork of the Owyhee River.



Figue 14. Erosional Areas, 45 Ranch, September 1999. South Fork of the Owyhee River.

Figure 15. Little Owyhee River, at Confluence with South Fork of the Owyhee River, September, 1999.

Figure 16. Riparian Area below 45 Ranch, July, 1999. South Fork of the Owyhee River.

Figure 17. Canyon Area below YP Ranch, Nevada, May, 1999. South for of the Owyhee River.

Figure 18. Riparian Area El Paso Pipeline, August, 1999. South Fork of the Owyhee River.

Appendix F. Public Comments and Responses

Jerry L. Hoagland
Seven High Ranch, Inc.

Pg.2, 1.0 Executive Summary. I agree with your conclusions, "A total maximum daily load management plan is not an appropriate vehicle for addressing temperature concerns in the South Fork Owyhee River."

Response: The EPA is requiring that temperature load capacity and allocations be established for both Idaho and Nevada.

Pg.9, 2.11 River Hydrology/Morphology. Because of the seasonal extreme variations of flows within this "box canyon type, with a confined river channel, and little access to a flood plain", how could you manage a nonpoint source concern, temperature, that is not a result of actions within the Idaho section of the South Fork Owyhee River, or for that matter, if Nevada was able to cool the water in the river, could the Idaho section maintain that temperature? I don't believe so. One must realize this is a "desert" stream.

Response: See above response. Sec. 3.0 describes load capacity and allocations for temperature. Modeling results indicate State of Idaho water quality standards can be achieved if temperature reductions are achieved in Nevada.

Pg.39, 2.7. Pollutants of Concern. "Besides normal erosional runoff of sediments, the irrigation induced erosion of the agricultural areas may also be a significant source. To what extent these agricultural areas contribute to the overall sediment increase to the South Fork Owyhee River is not known at this time." Your suggestion that sources of sediments in the upper reaches of the River in Nevada may contribute to the overall pollution of the South Fork Owyhee River is not appropriate for this claim. USDA-ARS-NWRC at Boise, Idaho, has extensive sedimentation studies of similar agricultural practices and of grazing and non-grazing rangelands at Reynolds Creek, Owyhee County, Idaho. The information from those studies should be reviewed before making statements directed at Nevada ranch practices.

Response: It has been stated in other studies (Mosely, 1999) that the source of sediments in the South Fork Owyhee River is associated with the agricultural practices in Nevada. The SBA-TMDL also states the extent of the sediment is not fully understood. Further evaluation in Nevada is needed. If data is available to demonstrate that sediment is not originating from agricultural lands, this will be examined during the development of an assessment in Nevada.

Daryl Albiston, Owyhee Field Manager
BLM/Lower Snake River District

P.1 Exec Summary. Paragraph 4, sentence 2. "State of Idaho lands", more appropriate?
45 Ranch is at confluence with Little Owyhee River
Last sentence Suggest Grazing of livestock began in the late 800's.

Response: The reference to State of Idaho school endowment lands is appropriate and will remain. The State of Idaho has designated lands that are managed by the State as school endowment lands with proceeds from activity on those lands earmarked for Idaho's schools.

Sentence will be changed to reflect that the 45 Ranch is 13 miles upstream from the confluence of the East Fork

Last sentence will read "with livestock grazing beginning in late 1800's."

P.2. Paragraph 2 suggest rewriting.
Paragraph 5 sentence 3 suggest rewriting. "...understood if Redband trout (the subspecies of rainbow trout found in the Owyhee Deserts streams and rivers) would utilize..."
The last paragraph is river morphology at site potential?
Is water quality required to meet Idaho standards at the Idaho/Nevada state line?

Response: Suggestion noted.

The reference to Redband trout will be rewritten.

Last paragraph has been rewritten to incorporate a TMDL for temperature.

The State of Nevada is required under the Clean Water Act to achieve Idaho water quality standards.

P.14 Section 2.1.4. If Redband trout were confirmed to be seasonally present, would that change anything? (i.e., water temperatures are at upper limit of what trout tolerate)? Given the size of stream it is not likely that they would stay in the S.F. as temperatures increase?

Response: State of Idaho water quality standards would have to modified to incorporate seasonal variability.

P.14 Paragraph 4. Not clear what this means. BLM does not have a designation like this. However, Redband trout, has however been designated a special status species.

Response: Map on page M-35 of the Owyhee Resources Area RMP was misread. Reference to the Special Status for Redband trout will be removed from the SBA-TMDL

P.15 Paragraph 1 contains misspellings.

Response: Appropriate changes will be made.

P.19 Paragraph 6, rewrite the last sentence.
Paragraph 7 needs to be rewritten.

Response: We feel the sentence in paragraph 6 is appropriate.

We feel the sentence in paragraph 7 is appropriate.

P.21 Section 2.3.6. Reference temperature data should use either tables or figures rather than rough data in Appendix A.
Section 2.3.7, is the same as 2.3.6

Response: Temperature data is referenced later in the Sec. 2.7 under discussion of Pollutants of Concern.

P.22 Paragraph 1 has misspellings.
Section 2.3. Includes data that should be in 2.4, or not mentioned until section 2.4?

Response: Will make appropriate changes.

Section. 2.4, Relates how the available information will be used. Further discussion of data as it relates to beneficial use support is in Section. 2.5.

P.24 Table 10 in text refers to temperature. Table 10, is fish captured.

Response: Appropriate changes will be made.

P.26 Paragraph 6. Last sentence, biomass - didn't Allen et al. sample additional fish species?
In the last paragraph the word succors should be suckers.
What species of Sculpin is referred?

Response: Similar species were found in the 1995 and 1996 studies. The emphasis is that no trout species were found ion either study. Sculpin species has been determined to

be *Cottus bairdi (Mottled Sculpin).*

Appropriate changes will be made.

Will make appropriate changes

P.27 Turbidity was not measured during runoff.

Response: Samples were collected during the backside of the hydrograph (May 1999). Samples were not collected during run-off, and this is one of the data gaps identified.

P.28 Section 2.6.4 contains misspellings.

Response: Appropriate changes will be made.

P.30 Paragraph 3. The last sentence needs to be rewritten.
Section 2.7.1 is similar to that already in Section 2.4.2. Could these be combined?

Response: Appropriate changes will be made.

Section 2.7.1 goes into greater detail on the Pollutants of Concern and describes the impacts to the beneficial uses and to what extent State water quality standards are exceeded. Section 2.4.2 describes how data is to be used.

P.31 In paragraph 5 the S-N aspect statement not consistent with Paragraph 3.P.

Response: Page 34 is in reference to a study completed in Oregon, where it was found that rivers with a east-west aspect had warmer water temperatures that those with a north-south aspect. This would indicate that exposure <u>duration</u> is longer in east-west systems. The South Fork Owyhee River does have mainly north-south exposure, further analysis of other rivers with a east-west aspect (East Fork Owyhee River) would assist to determine if the Oregon study would apply to these rivers. The South Fork is wide open for solar radiation input, but it is not clear if the <u>duration</u> of exposure is the same as those systems with an east-west exposure.

P. 33 In Figure 10 it is difficult to discern between 2-sample sites. Recommend giving a figure of max/min's, and another table of daily averages.

Response: The graph has been changed.

Further graphic of data is locatd in Appendix A.

P.36 Sigler <u>et al</u>. 1984 citation is not listed in literature cited section.

Response: Will make appropriate changes

P.39 Paragraph 1. Mid-river islands/depositional areas indicate the river has more sediment than it can handle. Did DEQ have a Fluvial Hydrologist look at this system? Are there eroding banks for 100's of meters? Yet, it was stated that the system is in equilibrium. A survey of % streambank stability might be helpful.

Response: Ideally more information should have been collected and more analysis completed on the South Fork Owyhee River. However, due to the limited timeframe for completion of the SBA and TMDL, limited information had to be utilized to make beneficial use support status calls. If the BLM wishes to provide additional information on beneficial use support status as related to streambank stability, an amendment to the SBA-TMDL can be incorporated into the SBA-TMDL at a later date.

There are no conclusions, except for the only one given in the last paragraph of the Executive Summary.

Response: A subsection will be added at the end of Section 2.9 with an overall conclusion.

Shouldn't Nevada deliver water that meets (or comes as close as possible) Idaho standards?

Response: A temperature TMDL has been developed with temperature capacity and allocations and is incorporated into Section 3.0.

Based on the description of the South Fork geomorphology provided it is not clear that the system is at site potential.

Response: It is not within the scope of this document to determine site potential. This document is designed to determine beneficial use support and address listed Pollutants of Concern.

There is probably a historic heavy load of sediment. Has the stream flushed it yet?

Response: It is not within the scope of this document to determine hydrologic conditions of the South Fork Owyhee River. It is speculated the South Fork Owyhee River is a transport system. If information is available to show that there is a historic heavy load of sediments and this load is impairing beneficial uses an amendment to the SBA-TMDL can be added to this document. It is still speculated the South Fork Owyhee River is in an equilibrium, with a majority of the sediment (both suspended and bedload) associated with spring runoff.

Mid channel bars cause increased erosion forces on banks which result in bank washing.

Response: It is not within the scope of this document to determine hydrologic conditions of the South Fork Owyhee River. It is speculated the South Fork Owyhee River is a transport system. If information is available to show that there is a historic heavy load of sediments and this load is impairing beneficial uses and amendment to the SBA-TMDL can be added to this document. It is still speculated the South Fork Owyhee River is in an equilibrium, with a majority of the sediment (both suspended and bedload) associated with spring runoff.

The sediment/stream morphology issue might indicate the need for a hydrologic study.

Response: Agreed, if a hydrologic study is developed, it can be added as an amendment to this document.

BLM has large scale aerial photos of the S.F. Owyhee taken in 1998-99, and has conducted a function condition assessment of the Idaho reach. Results of that assessment indicate the stream is Functioning at Risk with no apparent trend.

Response: The State of Idaho does not recognize PFC as an indicator of beneficial use support.

Katie Fite
Committee for Idaho's High Desert

Mike Medberry
American Lands Alliance

1. In the Draft Assessment, DEQ wrongly walks away from serious water quality problems that must be addressed. Despite finding temperature accedences over an extended period of time, DEQ fails to prepare a TMDL for temperature. DEQ analysis of sediment is limited by lack of data. DEQ never sampled bacteria. DEQ downplays recreational significance of the South Fork, and does not examine impairment of aesthetics.

   Response: A temperature load capacity and allocation have been developed and incorporated into Section 3.0. The limited sediment data available did not indicate that State of Idaho water quality standards were exceeded for sediments. The bacteria results are located in Table 8. There are no numeric or narrative standards to compare and determine aesthetic quality, nor has the DEQ-Boise Regional Office received complaints concerning the aesthetic quality of the South Fork Owyhee River.

<u>Sediment</u>

DEQ did not measure sediment at a time of year when the River bears most of its

sediment and nutrient load. DEQ's sediment work is a one point in time, look. There is no examination of sediments during many periods of biological importance for aquatic organisms - including cold water fish and mussels. DEQ has not collected sufficient data to determine whether a TMDL for sediment is required. DEQ must measure the suspended and bedload sediment during periods of high water. Sediments impair cold water species and suspended sediments impair feeding, aggravate gills, reduce oxygen intake by fish. Bedload sediments disturb macro invertebrate habitat, and fill pools.

Response: Available data did not indicate that State of Idaho water quality standards were exceeded for sediments. Independent analysis and interpretation of periphyton data did not conclude sediment was impairing aquatic life in the South Fork Owyhee River within Idaho (Appendix C.) It is recognized that a data gap exists that more information on pool frequency and pool quality is not available.

P.2 In the SBA/TMDL, DEQ, in sidestepping the sediment issue, repeatedly refers to substrates "appearing" good. How was this good appearance assessed? DEQ also collected only "limited" turbidity data - at one point in time. A range of quantitative data is lacking.

Response: The areas where substrate information was obtained did not indicate that sediments (% fines) were embedding substrate in quantities that would impair beneficial use support. Other studies (Allen, 1996) also indicated that sediment were not levels that would impair beneficial use support. The term "appears" is utilized in this document as a level of confidence with the evaluations made.

P.26 Waters of the South Fork Owyhee are murky and discolored. The surface in slack water in late summer is often coated with an algal scum. Periphyton assessment was done using standards and indices that may not be applicable to desert waters of the Interior Columbia Basin. We have repeatedly noticed that the waters of the South Fork Owyhee River have a murky appearance, and substrates are coated with algae and/or sediments. Periphyton scores indicated degradation and "Not Full Support" of cold water aquatic life, yet DEQ proposes no action to address this impairment.

Response: Nutrients that may be associated with the "scum" identified are not listed as pollutants of concern in the 303(d) list. Low flow water quality data (Appendix A) did not indicate that nutrients were at levels that may impair beneficial uses. However, it should be noted that high nutrients levels were found in May and June at the Nevada and Idaho sites. Nutrient levels dropped to levels below any recommend criteria for July, August and September. There is no indication that sediments are impairing the beneficial uses. The independent study submitted by Dr. Bahls (Appendix C) showed that the species present were sediment intolerant. The use of the Large River's assessment is still

in draft form. The use of pariphyton information collected and identified by Dr. Bahls showed that some of the species found in the South Fork Owyhee River were not included in the indices used to calculate Idaho's D-IBI. As more information is collected on Idaho rivers, especially in the High Desert Ecoregion, the assemblages used in the D-IBI will become more refined.

P.37 It is impossible to understand DEQ's discussion of turbidity which discusses colloidal material suspended in the water, but notes "that would also indicate the eroding riverbanks noted along the Nevada and Idaho sections were not contributing to the overall turbidity." What is meant by this? Also, DEQ measured turbidity during periods of low flow -- not during periods of runoff or after rainfall events when effects of bank erosion and other sediment sources would be greatest.

Response: Table 12 shows the turbidity results for 1999. Turbidity samples were collected in May 1999 at 7 sites during that period. Turbidity samples did not increase from the up-river sites to the down-river sites during that period. This would indicate that the material within the water column did not "pick-up" additional material. This is more heightened by the fact that no other tributaries were flowing in Idaho.

It is also impossible to understand what the Macroinvertebrate data means. Although the SBA contains an Appendix with long lists of species in small print, how was analysis done? What were reference areas? What impairment do the results show?

Response: Macroinvertebrates analysis is explained in Sec 2.4.3.

Bacteria:

There is no mention of bacteria in the SBA. DEQ failed to conduct necessary sampling for bacterial pollution of great importance to recreationists who use the waters of the South Fork.

Response: Please refer to Table 8, Sec 2.3.8.

Geographic Omissions:

DEQ can not ignore the influence of the Little Owyhee watershed. We ask that DEQ review USGS 1:250,000 maps that depict this very large watershed. Calico, Raven, Lake, and Tent Creeks in Nevada all are tributaries to the Little Owyhee. We are puzzled by the map accompanying the TMDL. Why were the Little Owyhee and intermittent draws tributary to the South Fork downstream from its confluence with the Little Owyhee not included in the SBA/TMDL?

Response: The Little Owyhee River is a separate 4th Order HUC and is not listed as a "Water Quality Limited Segment." At the time of monitoring, the Little Owyhee River had little or no flow into the South Fork Owyhee River. The lack of water makes the assessment of any water body for comparison to water quality standards impossible. The Little Owyhee River has been incorporated into all GIS coverage for reference only.

Impacts of grazing are ignored:

Severely over-grazed public lands span watersheds in a tri-state area tributary to the South Fork. Following in BLM's steps, DEQ demonstrates a reluctance to tangle with the multi-millionaire public lands ranchers and others who control upstream private lands in Nevada, as well as graze significant portions of public lands in the South Fork country in Idaho and Nevada.

Response: The scope of this document is to evaluate water quality information and determine support status for designated beneficial uses, and to develop a TMDL to achieve State of Idaho water quality standards.

DEQ claims that livestock do not use the river in Idaho, and seems to think that Nature Conservancy ownership of the 45 Ranch further absolves it from taking a look at livestock problems in Idaho. DEQ is wrong on both accounts. We have hiked the canyons of the South Fork, while herds of cattle ran bellowing in front of us, kicking up dust from uplands, and further damaging over-grazed stream banks. Rafters on the South Fork in Idaho in spring of 1999 observed significant cattle use in the riparian corridor. In addition, the Nature Conservancy continues to graze livestock in the South Fork watershed. The ranch manager was "busted" by BLM this year for illegally running his own cattle, in excess of numbers permitted legally to graze. As long as the Nature Conservancy continues to graze these lands, activities such as this may occur.

Response: The scope of this document is to evaluate water quality information and determine support status for designated beneficial uses, and to develop a TMDL to achieve State of Idaho water quality standards.

Temperature:

DEQ found temperatures that exceeded State of Idaho standards on 65% of monitoring dates.

Response: Agreed

DEQ notes that WQI scores were lower at the 45 Ranch than at the El Paso pipeline. This indicates that additional impairment, beyond that stemming from Nevada, is occurring in Idaho. (El Paso - a good rating, 45 Ranch - a poor rating.)

Response: The data presented in Appendix A indicates the largest contribution to lower water quality index (WQI) scores at the 45 Ranch is associated with increased water temperatures. This is further evaluated by the continued temperature results showing higher average water temperatures than those at the Nevada site.

Aesthetics:

DEQ must prepare a TMDL for aesthetics. The South Fork Owyhee River WSSA includes 44,955 acres of land in Idaho. Management of the WSA must not impair the land's suitability for designation as wilderness. DEQ's role is to be honest in its assessments of water quality parameters, collect adequate data, and provide reasonable analysis that can be acted upon to bring about changes that ensure compliance with water quality laws. This action is in the public's interest.

Response: The State of Idaho does not recognize aesthetics as an acceptable candidate for a total maximum daily load.

Under FLPMA, BLM was mandated to inventory its lands. BLM's evaluation of the South Fork WSA's suitability for wilderness focused on criteria of Naturalness, Solitude, Primitive and Unconfined Recreation, and Special Features. In BLM's 1991 Idaho Wilderness Study Report (IWSR) Volume 1, BLM's evaluation of these criteria and its recommendation of the South Fork WSA as suitable for wilderness, states on pps. 179-194: "Naturalness: "Wildlife within the WSA includes California bighorn sheep, mule deer, pronghorn, mountain lion, bobcat, coyote, river otter, beaver, raptors, waterfowl, chuckars, other birds and Redband trout." "The scenic natural features...attract people interested in hunting, backpacking, river running, and other activities such as...fishing. River running opportunities on the South Fork are of exceptionally high quality." "Floating or hiking along the river or its tributary streams gives a sense of participation in a natural force"... Also, p. 184: "Special Features: "sensitive wildlife species include...river otter and Redband trout."

Response: The State of Idaho does not recognize aesthetics as an acceptable candidate for a total maximum daily load. If data is available that demonstrates water quality does not support wildlife, the SBA-TMDL will be amended.

Today, Redband trout have disappeared from the South Fork in Idaho. We also note that BLM was concerned about sediment loads, even in the 1991 IS. reports: See p. 190 where

impacts of Alternatives on sediment loads are discussed.

Response: Through data evaluation it was determined the South Fork Owyhee River is in equilibrium, with a majority of the sediment (both suspended and bedload) associated with spring runoff. It was not shows that sediment was impairing beneficial uses or exceeding State of Idaho water quality standards.

In addition, in its evaluation of the Owyhee Canyon WSA in Nevada, BLM in the ISR cites values of Naturalness: "Redband trout"; Primitive and unconfined recreation: "wildlife viewing, fishing," etc.

BLM's evaluation of the South Fork included numerous elements associated with, and impacted by water quality.

The public interest is poorly served by DEQ's attempt to downplay the extraordinary values of the South Fork Owyhee. DEQ's report on p. 15 states that: "recreation opportunities (on the South Fork) are limited" by its "remoteness." This is a clear misrepresentation of the truth. Recreationists avidly seek the South Fork for white water experience! BLM's documents, readily available to DEQ, show the extent of the values of national significance that DEQ has overlooked in its incomplete and insufficient analysis in the SBA.

Response: See Table 8 for water quality concerns of the support of recreational use.

Redband trout have disappeared from the South Fork Owyhee - since BLM wrote its WSA analysis in 1991. Just 7 years ago, we too recall seeing Redband trout in the South Fork in Idaho. Consultants hired by the Air Force for preparation of the aborted ITR Bombing Range effort, noted Redband trout in the South Fork. Yet, during stream survey work of IDFG in 1996, no Redband trout were found. Katie Fite of CIHD participated in this stream survey, and recalls the murky brown-green water as well as slippery, algae-coated rocks.

BLM in the Proposed Owyhee RMP recommends the South Fork Owyhee River as Wild and Scenic River, and assesses its Outstandingly Remarkable Values. PRMP, Vol. 2, Appendix RECT-3, pps. A-207 to A-217. BLM finds the South Fork to "offer outstandingly remarkable float boating opportunities...along its entire length." "The entire South Fork Owyhee River segment offers a canyon landscape of diverse land forms, vegetation and water that possess scenic qualities of outstandingly remarkable value."

Response: Agreed

Under fisheries, BLM notes: “Fisheries habitat in the South Fork Owyhee...is presently judged to be in unsatisfactorily (fair to poor) condition overall because of **stream siltation**, low summer flows, high water temperature, and the lack of cover.”

The SBA p.14 states: “the South Fork Owyhee River is a special status area for Redband trout (BLM 1999).” DEQ cannot brush aside its responsibilities to ensure adequate habitat for trout and other aquatic species. DEQ can not walk away polluted, troutless waters in Idaho by pointing elsewhere. DEQ claims that Idaho’s problems come from Nevada. We do not believe this is completely the case.

Response: If further data becomes available that demonstrates that the assessment pertaining to habitat is found unacceptable, an amendment to the SBA-TMDL will be made.

DEQ fails to consider a wide array of cold water biota that could potentially inhabit the South Fork. During our work on public lands grazing we have reviewed Elko BLM documents for the YP allotment that discuss the South Fork as a location of the California floater, a rare and declining freshwater mussel. DEQ provides no data or mention of this species.

Response: Comments noted.

Even if it were true that Idaho’s problems come from upstream in Nevada DEQ must work to restore this now-salmonidless river system. DEQ should commit to working jointly with NV (and also Oregon-Little Owyhee) to change water quality conditions. DEQ has shown temperature impairment, and now must act to clean up livestock-damaged and polluted waters.

Response: If resources are available, the State of Idaho will assist the State of Nevada in their assessment of the South Fork of the Owyhee River in Nevada.

The Draft SBA must be withdrawn. DEQ must start over, and conduct a comprehensive look at Clean Water Act violations on the South Fork---a look that is based on scientifically sound methods and collection of a range of quantitative data. DEQ must also commit to working jointly with Nevada (and Oregon) to clean up these waters.

Response: Comments noted.

DEQ must collect data sufficient to prepare TMDLs for aesthetics, sediment, and bacteria. Only by collecting such data can DEQ determine degree of impairment of beneficial uses, and whether TMDLs must be done. DEQ’s temperature data for 1999 clearly show that a TMDL must be prepared, perhaps as a joint undertaking between

Idaho, Nevada, and possibly Oregon.

Response: Aesthetics are noted to be an acceptable candidate for a TMDL. Bacteria data (Table 8.) did not indicate that contact recreation was not impaired. Data collected in 1999 and the limited historical data did not indicate that sediments were impairing beneficial, or did data collected show that State of Idaho water quality standards were exceeded.

Please also incorporate applicable portions of our comments on the North and Middle Fork Owyhee SBA/TMDL here.

The Committee of Idaho's High Desert (CIHD) and American Lands Alliance (ALA) are submitting the following comments on the North and Middle Fork Owyhee Subbasin Assessment and Total Maximum Daily Load.

DEQ has erred in its failure to develop TMDLs for Sediment, Bacteria and Aesthetics in the Middle and North Fork Owyhee subbasins. DEQ inadequately sampled the North and Middle Fork Owyhee for bacteria and sediment, and misleads the public in its interpretation of limited Macroinvertebrate data. DEQ fails to discuss aquatic life such as rare or declining species of mussels or spotted frogs. Most disturbingly, DEQ fails to address impaired Aesthetics in these wild land waters with extraordinary values to the public---values that are of national significance.

Specific Comments:

DEQ based its decision not to do TMDLs for sediment on "available data," but DEQ simply did not make an effort to acquire data on sediment necessary to make a reasoned decision on preparation of a TMDL for sediment. DEQ failed to collect a range of data at a number of locations during various times of year, including periods of importance to life histories of aquatic species. DEQ did not use a sufficient range of techniques in its assessment of sediment.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ cites having "no data" --- that is precisely because DEQ failed to collect sufficient data at a range of stream locations. For example, the headwaters of the Middle Fork of the Owyhee River are grossly muddied and polluted by livestock trampling activity and livestock wastes. The entire watershed is an ecological shambles. CIHD and ALA repeatedly told DEQ that any assessment of water quality parameters in this subbasin must include a range of samples taken here. We met with DEQ staff and showed them photos of this area. Yet, DEQ never even visited this site.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ's Executive Summary concludes that "Biological indicators...meet Idaho's requirements for full support. In other words, there is no data at this time that shows specific impacts to aquatic life from the current sediment load." Stationery, anchored aquatic life forms such as mussels would be most susceptible to sediment impacts. Mobile species such as fish may find scarce micro sites in the system to escape sediment impacts. Mobile species such as fish may find scarce microsites in the system to escape sediment impacts. DEQ on page 3 says "therefore, there can be no increase in current beneficial uses." DEQ has gathered insufficient information to serve as a baseline for assessing sediment, so there is no basis for any future comparison. This is a meaningless promise. Quantitative data are required.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Although "...EPA does not require flow and habitat alteration to be addressed as a TMDL pollutant", DEQ could prudently assess this. Without adequate habitat, aquatic species impaired, and beneficial uses impaired and not fully supported.

DEQ only collected data on bacteria at one location on the North Fork Owyhee River during two months. DEQ fails to say if livestock were grazing the area when the data collected occurred. If the samples were collected in the North Fork Campground, this is an area that is closed to all livestock grazing, and it is certainly not representative of the water quality conditions on the remaining 99.9% of the streams in the TMDL analysis area. If samples were collected upstream from the road crossing, it is our observation that this area is not normally grazed during the time period when DEQ took samples.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

BLM shows that during periods of livestock grazing, bacteria levels often peak. To accurately reflect conditions in waters, DEQ must collect samples during periods when livestock are present and also during runoff periods when large amounts of livestock waste are flushed into streams. DEQ did not do this.

Response: Table 8. shows the bacteria data collected in 1999.

DEQ p. 3: "... and overall loss in living space may be... the result of either nearby habitat and flow alteration or an excessive sediment load that results in pool filling..." DEQ plans on monitoring pool quality within the lower reaches of the North and Middle Fork Owyhee Rivers." This is not adequate. This TMDL process for sediment, nutrients and aesthetics cannot be complete until data is collected from representative reaches of streams. DEQ will not have taken a hard look at water pollution and impaired uses in these watershed until a TMDL process for sediment, bacteria, and aesthetics is undertaken.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Table 6 on page 17 provides "percent of BLM Acres with High Erosion." This shows that 39% of the acres in the Cliffs allotment, which includes portions of Juniper, Cabin, Corral, Noon Creeks and the North Fork Owyhee River, have high erosion potential. In addition the Cliffs, Pole Creek, and Trout Springs allotment are perennially over-grazed. BLM stubble height criteria fail to be met year after year. Uplands contain large areas of bare soil where sheet erosion is occurring, and desirable perennial native species such as Idaho fescue are being replaced by Poa bulbosa, a very poor soil stabilizer, and weedy annuals. Any possible BMP loop to protect habitat or water quality is not working.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ fails to adequately describe the Existing Environment. Page 21 provides AUM information, but fails to provide any information on the repeated failures of livestock grazing to meet even modest standards of BLM.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ cites "a reduction in beaver activity as a reason for stream channel down cutting and entrenchment", and cites an IDL report. While beavers have disappeared from large areas of these drainages, their continued absence today is due primarily to lack of riparian habitat that is caused by unrelenting over-grazing. This damage to upland and riparian habitat is not just historic, but is caused by continued **over-grazing.** This overwhelming cause of habitat loss is clear to any one who sets foot on the ground in the Middle and North Fork Owyhee watersheds.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Table 1: DEQ failed to collect data from Soldier, Pole and Field Creek. Pole Creek is grossly overgrazed by livestock, and typically has the lowest stubble heights of any stream in the Owyhee Resource Area. DEQ must designate beneficial uses for these streams, and collect data on sediment, bacteria, temperature, aesthetics, and habitat parameters.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Table 3: DEQs 1998 303d List errs in not listing bacteria as a Pollutant of Concern in all Water Bodies. It errs in not listing Impaired Aesthetics as a Pollutant/Issue of Concern in all water bodies in these subbasins.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Figure 2 indicates that Pole Creek and other drainages were not included in the 1998 303d List. This is a gross oversight. Pole Creek is severely degraded by livestock --- with significant impairment of all beneficial uses.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Page 25 states: "Most of the listed water bodies...are fed by springs, seeps, and upland wet meadows...located at higher elevations." These areas are not contained in deep canyons, and are readily accessible to livestock. All such sites (outside of a handful of exclosures) that we have visited in these drainages are severely grazed and trampled, and their banks and water are fouled by large amounts of livestock waste. In addition, hummocking, and damage to riparian plants is causing these springs, seeps and wet meadows to shrink dramatically in size --- resulting in habitat loss, substantial decreases in watershed storage, and loss of significant amounts of cooler, more slowly released water to the drainage system. Yet, DEQ failed to even sample these sites, such as the Middle Fork of the Owyhee River. There is no indication that DEQ visited the 6 foot headcut just below the tiny remnant wet meadow at the head of Big Spring Creek inside a BLM exclosure that is routinely trespassed. The remnant Big Springs wet meadow/spring area is the best example of this habitat type that remains in the SBA area.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Page 27-28 analysis of loss of floodplains and channel entrenchment is misleading in focusing overly on loss of beavers, and historic factors. Historic and ongoing livestock grazing are so clearly evident to any one who visits these watersheds. DEQ must be honest and recognize this. No valid scientific assessment of water quality can occur until DEQ honestly recognizes this. No restoration and maintenance of the chemical, physical and biological integrity of these waters can occur until this is done.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Page 31: "No more than a ten percent increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity." Throughout the grazing period (June-October) on these streams, cattle concentrate on riparian areas, stand and defecate in and along streams, causing significant water turbidity problems. DEQ does not discuss this. DEQ presents no data on background/baseline turbidity.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Maps: Although some maps are attached to Appendices, it is not clear if each sample sites are the same for all parameters that could influence data --- were samples taken inside the

canyon a steep-walled canyon inaccessible to livestock, or in an open area/ Were livestock present when sample was collected? Etc. The sampling environment must be adequately described.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

P. 44. Sediment data: DEQ states that: "the high percent of fines measured (Table 20) do not, in and of themselves, indicate an excessive amount of sediment under the narrative sediment standard," because salmonid spawning was found in several streams. DEQ fails to address impairment of spawning, and other life stages. Certainly, there may be small areas within canyon portions inaccessible to livestock where spawning may occur, but DEQ has no grounds for saying that spawning may not be impaired, when faced with data of high percent fines, and visual appearance of habitats.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Occurrence of salmonid spawning does not mean that the narrative sediment standard is not being violated. Data in Table 20 provides convincing evidence that DEQ must prepare a TMDL for sediment, and can not escape with a thin of sketchy future monitoring, as is proposed.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ draws false conclusions, and ignores its own data in discussions of macroinvertebrate species on p. 46. Appendix C. Macroinvertebrate data shows:

* Cabin Creek - Cold water indicators were not found.
* Corral Creek - (D)ata show a significant disturbance in assemblage composition.
* Juniper Creek - Too few organisms in June sample; no cold water indicators in June or August samples.
* Pleasant Valley Creek - Too few organisms in June sample. No cold water indicators in August sample.
* Squaw Creek - (S)ite is moderately to heavily impacted. No cold water indicators in August. Only 1 of 452 organisms in June (possibly) a cold water indicator.
*** Middle Fork Owyhee River - No cold water organisms found.**
*** North Fork Owyhee River - No cold water organisms found.**
* Big Springs Creek - Most organisms are tolerant of disturbance.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Report in Appendix C cites DEQ's protocols that sample collections should consist of a minimum of three samples! ---This apparently was not done in the development of this

SBA/TMDL report, and renders any positive conclusions about macroinvertebrates being ok scientifically invalid. In addition, DEQ's macroinvertebrate assessments lack reference conditions, do not describe or contain rationales for selection criteria for monitoring stations, or frequency of monitoring.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ misleads the public in its description and analysis of macroinvertebrate data. It is impossible for a reasonable person to understand how DEQ arrives at statements such as p. 46 "Macroinvertebrate species collected at each of the listed water bodies shows that, while most of the species presents tolerate disturbances, most of the samples have good total abundance, taxa richness, and species that are generally associated with good water quality conditions, including cold water." In reality, an examination of Appendix C shows that such conclusions simply can not be drawn. The statement that "overall review of these data indicate that each site monitored reflects minimal impacts within an arid system" is clearly not valid.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

By no stretch of the imagination can the macroinvertebrate data be said to show "minimally impacted" sites, as DEQ claims on p. 49. DEQ can not even followed its own protocols in collecting samples.

Here, as in its South Fork Owyhee SBA/TMDL, DEQ masks impacts and paints a make-believe picture.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

The upper portions of drainages such as Noon Creek in the Cliffs allotment were scheduled for complete rest from livestock this year, due to extreme degradation by livestock. So, samples are not representative of actual on-the-ground conditions in years when areas are grazed. The impact conclusions of the report writer in Appendix C must be interpreted/related to livestock grazing - cattle presence - vs. rested areas.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

For well over a decade, the Cliffs allotment has been known to be an ecological disaster, but BLM has been unable to make on-the-ground changes due to political pressures from livestock interests. We ask that DEQ review data in BLM's grazing and riparian files for the Cliffs and other allotments, and honestly present this data as part of the TMDL analysis. Ongoing habitat loss is occurring as futile attempts to stabilize eroding stream banks with no-eroding juniper rip-rap show.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Temperature criteria that protect only a single salmonid stage (spawning) are inadequate. State criteria and TMDLs must protect all life stages of salmonids if beneficial uses are to be protected.

Response: Comment noted.

Reductions in thermal load should be established for Big Spring and Squaw Creeks.

PFC is highly subjective. The PFC assessment cited by DEQ was done by IDL under the usual political pressure to uphold continued extractive use by livestock permittees on leased state lands, and to thwart conservationists from acquiring state leases. Idaho Watersheds Project had submitted competing lease applications for these lands in 1999, and this prompted preparation of the IDL document. A report done by IDL in this context must be viewed with skepticism.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

The PFC study that BLM paid Consultants from Montana to conduct is highly suspect, since consultants surveyed over 100 sections of stream, and found none to be non-functioning. The Consultants begin their report with a disclaimer, saying that they hesitate to call any stream nonfunctioning. In addition, the Consultants appear to be very unfamiliar with the high desert stream environment and processes --- the beginning of the BLM PFC report contains a photo of high water debris in riparian vegetation in Deep Creek, and interprets the debris as being the result of thunderstorm events. Deep Creek is renowned among whitewater recreationists for being an early spring high water stream, with a very brief window of floating opportunity. Spring snowmelt runoff events, not thunderstorms, deposit head-high debris in streams such as Deep Creek. Such bias and hesitancy to call any stream, no matter how bad the condition, “non-functioning”, extends into the 1999 BLM PFC Memo attached to the TMDL: “low functioning at risk” streams are in great jeopardy. There is extraordinary reluctance in BLM to admit “nonfunctional” stream condition, since peer-reviewed scientific literature recommends periods of complete rest for streams in non-functioning condition. Complete rest for streams is politically unpalatable. Political pressures color the subjective PFC reviews.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

BLM’s own stubble height data for the past four years shows that sufficient vegetation to dissipate energy and protect banks from erosion has not been left on these streams. The claimed “upward trend” of PFC is discounted by the continued stubble height measurement failures, and over-utilization of herbaceous and woody riparian vegetation

on these streams in 1996-1999. The subjective nature of PFC makes it readily bent to political pressures. Stubble height measurements are not nearly as subjective. We have attached BLM stubble height data "Stubble Height Provisional Data 1998", Attachment A. BL< has not yet summarized data form 1999, but we have obtained stubble height data for several streams in the SBA, and these stubble heights again have not been met. See Attachment B. Stubble height requirements were attached by BLM to streams in unsatisfactory condition. The 4" stubble height is a very minimal amount, and is insufficient to allow recovery of damaged streams --- yet even this is not met with current grazing practices in the subbasins.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

P.54: DEQ states: "The Functional-at-Risk" PFC rating, the evidence that Redband trout spawn successfully..., the finding that sites appear to be minimally impacted based on the Macroinvertebrate present, indicates that an excessive sediment load may not be occurring at this time." PFC is subjective, it has not done on all streams, and is contradicted by measured stubble height and woody utilization failures on damaged streams, and widespread degradation of streams. Although Redband trout spawn successfully, they may only be able to do so in very limited segments of streams --- likely canyon or rocky areas inaccessible to direct livestock damage. Again, there is absolutely no way to classify Macroinvertebrate data as pointing to "minimal" impairment.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

The proposed Owyhee RMP does not contain adequate management actions to address water quality. Attainment of water quality can not be dragged out more than 20 years. Livestock enclosures are small, and are routinely trespassed. We visited Johanna Luce and the DEQ crew while they were working on the Big Springs Creek. That same day, trespass cattle were inside the exclosure at the headwaters of Big Springs Creek. BLM has failed to enforce even modest stubble heigh requirements. (See Stubble Height Provisional Data 1996-1998 - Attached).

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Although BLM has not finished compiling 1999 stubble height data, we contacted BLM and obtained data for several streams in the SBA Assessment area. Stubble heights are lower than ever, and permittee have failed to meet criteria once again.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

There is no consideration of cumulative or interacting impacts. For example, high temperatures coupled with excessive nutrients form livestock wastes may exacerbate

algae growth in streams and lead to increased turbidity. Both sediments and algae can clog and coat habitats necessary for aquatic species.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ fails to mention spotted frog life history stages, and impacts of impaired waters on this species which is a Candidate for listing under the ESA.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Aesthetic Values and National Significance of Wild Lands and Wild Waters of the North and Middle Fork Owyhee Rivers:

CIHD and ALA are very concerned that DEQ has shirked its duty to address Aesthetic Values of the North and Middle Fork Owyhee Subbasins.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Juniper, Cabin, Corral, Big Spring, Pleasant Valley Creeks and the North Fork Owyhee River are all located within the North Fork Owyhee Wilderness Study Area (WSA). The Idaho Wilderness Study Report (ISR.) pps. 17-29 evaluates the North Fork Owyhee River WSA as follows: "The main and tributary canyons of the North Fork Owyhee River and Current Creek...These canyons are typically narrow, meandering, sheer-walled and have well-vegetated riparian zones." "The area is the most scenic (of 5 WSAs analyzed in Owyhee Wilderness Plan Amendment and EIS)". This WSA met BLM's criteria of Naturalness, Primitive and Unconfined Recreation. Its..."30 miles of deep canyons...attract recreationists interested in backpacking, hunting, fishing, sightseeing, photography and wildlife viewing". Special Features: "The WSA is of exceptional quality because of its specular sheer-walled canyons and rock outcrops highlighted with gnarled juniper. Two sensitive wildlife species, the river otter and the Redband trout..."live here.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Big Willow Spring WSA includes Pole Creek. ISR. p.34. "The WSA's scenic natural features provide outstanding opportunities for primitive and unconfined types of recreation for people interested in backpacking, sightseeing, photography, wildlife viewing, fishing and hunting."

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Squaw Creek Canyon WSA. ISR. p. 45. "Primitive and Unconfined Recreation."

"The WSA's highly scenic natural features provide outstanding opportunities for primitive and unconfined types of recreation for people interested in backpacking, hunting, fishing, sightseeing, photography and wildlife viewing."

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Middle Fork Owyhee River WSA. ISR. p. 56. Primitive and Unconfined Recreation. "The WSA's highly scenic natural features provide outstanding opportunities for primitive and unconfined types of recreation for people interested in backpacking, sightseeing, photography, wildlife viewing, hunting and fishing."

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

In addition, the North Fork Owyhee River becomes a Congressionally designated Wild and Scenic River at the Idaho-Oregon State line. The Middle Fork in Oregon is a tributary to the Main Owyhee WSA. In 1984, Congress designated 120 miles of the Main Owyhee River as a federal Wild and Scenic River pursuant to the WSRA. In the Oregon Omnibus Wild and Scenic Rivers Act of 1988, Congress added 57 miles of the West Little Owyhee and nine miles of the North Fork Owyhee to the national wild and scenic river system. Congress classified all three segments as wild. The "wild" classification is the most restrictive of three possible classifications, and provides the highest degree of protection.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ p. 53 states: "IDEQ evaluation of Oregon water quality standards showed that the Middle and North Fork Owyhee Rivers are impairing salmonid rearing uses at the Idaho/Oregon state line." This is alarming, given that downstream Wild and Scenic River corridors are Congressionally mandated to be managed to provide the highest degree of protection. DEQ has admitted that Idaho waters are impairing values of the WSR.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

The Proposed Owyhee Resource Management Plan Appendix RECT-2, Vol. 2, provides "Final Eligibility and Classification Determinations for Potential Wild, Scenic and Recreational River Designations." BLM's assessment found Recreation to be an Outstandingly Remarkable Value of the North Fork Owyhee River (16 miles), and segments of Juniper Creek, Cabin Creek, Corral Creek, Noon Creek, and Pleasant Valley Creek.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

In all streams in these subbasins, we have observed severe grazing impacts each year: Herbaceous riparian vegetation is stripped to ground level, streambank areas accessible to livestock are universally trampled and have damaged, often collapsing banks. Livestock feces and urine pollute banks. Cow pies clog the water. The stench of livestock waste permeates the air in and around streams. Wading in this water stirs up could of brown, murky sediment. Algae clogs the surface of slow-moving water, and coats instream rocks and other substrates with a slimy covering. Frankly, we are often afraid to let our dogs drink or come in contact with the livestock-fouled waters of the Middle and North Fork Owyhee systems.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

These environmental conditions and their impacts must be addressed by DEQ in development of TMDLs for sediment, bacteria and aesthetics in the North and Middle Fork Owyhee Sub-basins.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

DEQ must withdraw the Draft TMDL, and prepare a new Draft SBA/TMDL that addresses sediment, bacteria, and aesthetics. The temperature TMDL included in the present document must be augmented, and include parameters necessary to support all life stages of salmonids, and other cold water aquatic organisms.

Response: Comments are not directed at the South Fork Owyhee River SBA-TMDL.

Leigh Woodruff, Idaho TMDL Coordinator
Environmental Protection Agency/Idaho Operations Office

Although this report is an assessment and not a total maximum daily load (TMDL), we believe that a TMDL is required for temperature, given the significant accedences of temperature criteria documented in the assessment. Since temperatures exceed Idaho standards as the river enters Idaho from Nevada, we believe the TMDL should establish a temperature allocation for sources in Nevada such that Idaho criteria are met at the border. Idaho has a right that waters entering the state meet its water quality standards [see Arkansas v. Oklahoma, 503 U.S. 91 (1992)], and establishing a load allocation as a target for Nevada is consistent with case law. Clearly Idaho could not implement the allocation for Nevada since it lacks authority, and we would recommend clarifying this point in the TMDL.

Response: A TMDL for temperature has been incorporated into the document.

We also have a few specific comments as follows:

P.26. The "Periphyton Data" (Appendix D) discussion presents conflicting conclusions. Dr. Loren Bahls found "full support of cold water biota," but the "Diatom-Idaho Biotic Index" results indicated "Not Full Support" of cold water aquatic life. An explanation of this discrepancy would be useful.

Response: The use of the Large River's assessment is still in draft form. The use of pariphyton information collected and identified by Dr. Bahls showed that some of the species found in the South Fork Owyhee River were not included in the indices used to calculate Idaho's D-IBI. As more information is collected on Idaho rivers, especially in the High Desert Ecoregion, the assemblages used in the D-IBI will become more refined.

P.31 Under "Sources", the statement is made that there is "one known input from agriculture...the 45 Ranch." The study concludes that "thermal modification would be very limited" by this source. Temperature data were obtained at this site but only "upstream of any agricultural return sites at 45 Ranch." We believe that the discussion regarding the effect that this return could have on the S. F. Owyhee River temperature should be expanded, and recommend that temperature above and below the irrigation return flow be measured in the future to verify its effect.

Response: If resources are available, further temperature analysis will occur at the 45 Ranch. However, it should be noted that withdrawals during the 1999 monitoring season did not indicate any adverse impacts (the river never dried up). Diversions from the South Fork Owyhee River were never greater than 2-3 cfs during periods when DEQ was at the site.

A characterization of the width/depth ratios in the S. F. Owyhee River and its effect on temperature would also be available. Since temperatures at the border exceed standards, could high width/depth ratios in Nevada and Idaho be contributing to elevated temperatures? Could anthropogenic changes in hydrology or bedload sediment transport in Nevada and Idaho be a factor in contributing to high width/depth ratios and elevated temperatures?

Response: It was not the scope of this document to evaluate land use in Nevada. From River Mile 52 to the 45 Ranch diversion, no other diversion structures were noted. High width/depth ratios are discussed in Section 2.7.1. It is believed most river morphology is dictated by the river canyon itself. However, permanent riparian evaluation sites have been established to assist in determining if changes in landuse do occur, benchmark data is available to determine changes.

Scott Brown
Idaho Conservation League

Please accept these comments on the draft South Fork Owyhee SBA/TMDL on behalf of the 3,000 members of the Idaho Conservation League.

It is unclear if all applicable water bodies were assessed for all parameters (for example, the Little Owyhee, an intermittent stream which drains a large watershed). All water bodies, including ephemeral and intermittent need to be assessed in the SBA/TMDL process. These water bodies need to have their beneficial uses protected and can also be significant loaders of sediment, nutrients, bacteria, etc.

Response: The Little Owyhee River is not on the 1996 303(d) List as an impaired waterbody and was not assessed. Water quality information collected in 1999 did not indicate loading from the tributaries for sediments, nutrients or bacteria.

Temperature

Given the interstate nature of the South Fork we believe it's appropriate that Idaho work with Nevada to ensure the South Fork gets 303(d) listed and that Nevada commits to addressing temperature and other issues ASAP.

Response: It is not within the scope of this document to assess the landuse practices within the State of Nevada. Since the South Fork Owyhee River is Interstate waters, it will the responsibility of the United States Environmental Protection Agency (EPA) to initiate dialogue with the State of Nevada. If the State of Idaho can offer assistance, this option will be explored.

Idaho's contribution to temperature accedences needs more thorough assessment.

Response: Temperature capacity and allocations have been incorporated into Section 3.0.

Sedimentation and diversion are almost certainly contributing factors on the Idaho side.

Response: During the 1999 monitoring effort and the data obtained during that effort, it was determined that sediments were not impairing the beneficial uses or were State of Idaho water quality standards exceeded. Flow modification is not recognized as a pollutant of concern that can adequately addressed in the TMDL process.

IDEQ should also acknowledge that temperature criteria protecting a single salmon life stage (spawning) is inadequate. State criteria and TMDLs must protect all life stages of the salmon if beneficial uses are to be recovered and protected.

Response: Comment noted.

Sediment

The North and Middle Fork Owyhee Rivers SBA/TMDL noted that "the most likely impacts of the current sediment load within these drainages to the beneficial used is an overall trend in pool filling resulting in a loss of deep, cool water refuge space." We suspect the same is probably true for the South Fork as well. This needs to be reasonably assessed in this SBA/TMDL.

Response: Limited time and resources were available to assess the entire river reach. It is recognized that there is data lacking for pool filling and other impacts from bed-load sediments (Sec. 2.6.2)

The DEQ has an uncanny ability to ignore its own data when those point toward impairment. The periphyton report (Appendix C) found "minor" to "moderate" impairments of aquatic life uses, and determines that the El Paso Pipeline site was only **partially supporting aquatic life** uses in July 1999. P.1 Well also question the basis for judgement calls that aquatic life uses can suffer from "minor" impairments and be fully supporting at the same time.

Response: The El Paso Pipeline site is in the State of Nevada. It was not within the scope of this document to determine support status of beneficial uses in adjoining states.

This study also found the South Fork to be in poorer condition than the East Fork reference stream and concluded that temperatures, siltation, and inorganic nutrients (phosphorus) are the likely causes of impairment.

Response: Samples collected from the East Fork Owyhee River were not intended to used as a reference site. Samples were collected to assist in comparing the South Fork water quality and biological information with a similar drainage/watershed. Dr. Bahls' report did not indicate that aquatic life was not supported at the Idaho site.

The Macro invertebrate data from the 45 Ranch showed impairments as well ("a reduced population"). Despite this evidence of impairment, the DEQ has determined sediment can be ignored because habitat and sediment can be ignored because habitat and sediment are not the liming factors. It seems reasonable to assume that there is not a single liming factor. Temperature, habitat, water chemistry, flow and other variable are inextricably linked together and determine ecosystem health.

Response: Macroinvertebrate data did not indicate that cold water biota was impaired at the Idaho site and that expected abundance and species present were what to be expected. Limited substrate information from 1999 and Allen (1995) did not indicate that substrate habitat was

limiting cold water biota.

We continue to question the subjective nature of the DEQ's macro vertebrate assessments: the lack of reference conditions, the number of and selection criteria for monitoring stations, and overall monitoring frequency.

Response: Marcoinvertebrate assessment was made on the Idaho River Index (Royer and Minshall, 1996, 1997 and 1999). This index offers an examination using reference rivers throughout the state. It is recognized that the High Desert Ecosystem offers a unique ecology condition and further assessment for reference conditions should be explored.

Sedimentation is also important to address in the South Fork due to potentially direct influences on temperature.

Response: Sediments were assessed to determine impairment to beneficial uses and if Idaho water quality standards were exceeded. It was not within the scope of the Sub-basin Assessment to determine what the affects sediments have on temperature in the South Fork Owyhee River.

The relative lack of turbidity data, failure to adequately assess pool frequency and quality and the subjective nature of other data makes ignoring sediment in this TMDL a difficult action to defend.

Response: It is recognized that a full assessment of pool depth, frequency and quality is lacking and is recognized in Sec 2.6.

Nutrients

The report by Dr. Bahls (Appendix C) states that the El Paso Pipeline site was only **partially supporting aquatic life** uses in July 1999 and that the probable cause was phosphorus enrichment. P 1 This report also states that the aquatic life impairment noted at the 45 Ranch was probably caused by "nutrient enrichment" and that there were "several signs of inorganic nutrient, probably phosphorus, enrichment at both South Fork sites in July" p 11.

Response: The El Paso Pipeline site is in the State of Nevada. It was not within the scope of this document to determine support status of beneficial uses in adjoining states. Water quality data did not indicate a nuisance aquatic growth presence that would impair beneficial uses.

Flow

Impacts from diversions (45 Ranch etc..) do not appear to have been assessed. Flow conditions relate directly to temperature and other parameters.

Response: The 45 Ranch diversion is the only diversion structure on the South Fork Owyhee River within the State of Idaho. Diversions and impoundments were not assessed outside Idaho. Flow modification is not recognized as viable pollutant of concern to be addressed in a TMDL.

Conclusion

Despite the apparent absence of the salmon species, IDEQ is proposing no action to recover beneficial uses in this SBA/TMDL. That is obviously unacceptable.

Response: DEQ has modified the Sub-basin Assessment and has established temperature load capacity and allocations as waters enters the state, and reduction goals that would be required to achieve Idaho water quality standards within the State.

Idaho Department of Fish and Game

The primary limiting factors indentified in the draft documents for the beneficial uses of coldwater biota and salmonid spawning are the result of degraded stream-riparian ecosystems. High water temperatures documented in the subbasins are partly the result of a general lack of stream shade due to degraded overstory riparian vegetation communities. Other than pool quality and substrate sediment, the draft documents generally lack discussion of other critical instream habitat parameters that are largely influenced by riparian conditions (e.g., streambank conditions, large woody debris, width:depth ratios, pool frequency, water depth). These habitat descriptors significantly influence the health of aquatic biota. We realize these assessments were limited in scope, but other than pool volume, what other habitat parameters will be measured by the Division of Environmental Quality (DEQ) in the future? Is the Bureau of Land Management (BLM) monitoring these descriptors on their lands?

Response: Other parameters such as streambank condition and riparian area are addressed in Sec 2.7.1. of the Sub-Basin Assessment. Width depth/ratios were obtained at both Idaho and Nevada. Riparian vegetation was assessed at both sites maily to determine trend analysis and river morpholoy characteristics. The BLM is current conducting an ariel survey for Properly Functioning Condition, to date, this information is not available.

Throughout the Owyhee Resource Area of the BLM, the BLM's primary management concern is the degradation of riparian communites. They cite livestock grazing as the primary factor degradingriparian systems. This concurs with our of the key findigns for the Owyhee Uplands listed in the ecosystem assessment of the Interior Columbia Baaasin (Quigley and Arbelbide 1997).

Response: Comments noted.

Redband trout are a BLM Sensitive Species and a State of Idaho Species of Special Concern. In

April 1995, a petition was filed to list the interior redband trout of Idaho, Oregon, and Washington under the Endangered Species Act. In September 1995, the U.S. fish and Wildlife Service concluded the existing data did not support proposing the species for listing. In our opinion, if state and federal agencies do not promote and implement significant landscape scale improvements to riparian and aquatic environments in the Owyhee River Basin, then potential fish and wildlife species listings under the Endangered Species Act remain a possibility.

Response: Comments noted.

In addition to aquatic species, the IDFG has previously expressed a number of concerns regarding wildlife species inhabiting the Owyhee River Basin, particularly on federal lands. A great number of these wildlife-related issues involve the existing degraded condition of stream-riparian ecosystems on BLM lands. Wildlife habitats are a beneficial use. Rehabilitating riparian and wetland areas on federal lands will significantly benefit a number of wildlife species. To put our concerns in perspective, we are enclosing comments submitted to the BLM regarding the Draft Environmental Impact Statement (EIS), and those submitted for the State of Idaho's consistency review for the Proposed Owyhee RMP and Final EIS.

Response: Comments noted.

We concur with the DEQ's findings that increased stream shading is necessary to achieve Idaho's stream temperature standards. This requires significant basin-wide improvements in riparian-wetland vegetation communities. This will involve necessary changes to livestock grazing practices and strategies across land ownership. We think the DEQ can play an invaluable role in riparian-wetland restoration by ensuring compliance with water quality standards.

Response: Comments noted.

Draft Owyhee Resource Management Plan and Draft Environmental Impact Statement

The Idaho Department of Fish and Game (IDFG) has completed its review of the Draft Owyhee Resource Management Plan (RMP) and Draft Environmental Impact Statement (DEIS) and offers the following comments for your consideration. These comments are offered as per our authority under Idaho Code Section 36-103 and Fish and Game Commission direction found in **"A Vision for the Future, Idaho Department of Fish and Game, Policy Plan 1990-2005."** The Bureau of Land Management (BLM) has provided the IDFG with numerous opportunities to identify specific concerns throughout the years of preparation of these documents. These efforts are greatly appreciated.

Wildlife Habitat

The IDFG has species management plans adopted by the Fish and Game Commission. As such, they function as supplements to the Commission approved 15 year Policy Plan. These management plans provide the IDFG with policy direction to manage Idaho's wildlife resources as per our legal mandate. Input was provided during the review process in development of these plans from IDFG personnel, other agencies and entities, and the genral public. These management plans were prepared with a five year life span

Riparian habitats were frequented by mule deer where a well developed shrub component was present. Use of riparian areas was particularly important in drought conditions (Milner 1995). Junipers provide hiding/escape cover during the hunting season and thermal protection in winter.

Response: Comments noted.

According to the BLM, about 87% of riparian areas surveyed to date in the ORA are in nonfunctional/functional-at risk (unsatisfactory as defined by BLM) condition. Generally, the BLM found that these degraded riparian areas contained low plant diversity dominated by Kentucky bluegrass with little shrub canopy coverage. These conditions are not suitable or adequate to provide for the needs of mule deer.

Response: Comments noted.

Invasion of western juniper into shrub steppe communities has reduced the amount and productivity of shrub steppe habitats over significant portions of the ORA. This loss of sagebrush communities is generally believed to reduce availability and quality of mule deer habitat and there fore have a negative impact on mule deer populations. Mountain mahogany stands that historically provided important mule deer habitat in protions of the ORA have been lost to juniper invasion and insect infestations. Reproduction in these stands appears to be nearly absent.

Management Opportunites

Implementaiton of the following recommendations are **necessary** to meet IDFG management goals for mule deer:

Maintain or restore riparian habitats to achieve Proper functioning conditon (PFC) on all streams by the end of the planning period. We refer to the concept of PFC as defined by the BLM in Barrett et al. (1993). A marked improvement in the riparian shrub component would provide the most benefit to mule deer.

Response: Comments noted.

Late summer, fall and winter livestock grazing of deer winter ranges should occur only if it can

be managed to enhance winter mule deer forage abundance. Livestock grazing of winter ranges should be designed to benefit mule deer by improving the shrub component.

Sagebrush eradication and introduced grass seeding projects should avoid winter range areas. See also recommendations for seedings.

Implementation of the following recommendations will **contribute** to the attainment of IDFG management goals for mule deer:

General improvements in upland range condtions that encourage a stable native forb, grass and shrub component in shrub steppe habitats will benefit mule deer and reduce competition with livestock.

Juniper should be controlled in areas where it is invading shrub steppe communities to reduce the loss of mule deer habitat. Eradication of Junipers in areas where shrub steepe and mahogany habitat has been lost will improve the productivity of the land for mule deer if the area is properly rehabilitated. See also recommendations for juniper control.

Maintain Douglas fir, aspen, and mountain mahogany communities.

Pronghorn Antelope

IDFG Management Goal: Maintain current population size in those big game management units located in the Owyhee Resource Area.

Current Situation/Management Challenges

Pronghorn antelope populaitons in the ORA have been relatively stable for the last decade. Antelope spend the spring, summer and fall in the ORA. Antelope migrate out of the ORA depending on the severity of the winter. Some winter range is present in the ORA.

Habitat factors known to limit antelope populations include loss of shrub steppe plant communities to wildfire and sagebrush eradication, disruption or blocking of migration routes, and competition with livestock.

Unlike many other ungulates, antelope do not build up large reserves of body fat to get them through the winter. They are therefore not able to survive for long periods without forage. Their main strategy for survival during periods of food shortage is to migrate t areas where food is available, hence the importance of magration corridors and large expanses of shrub steppe habitat.

Conversion of sagebrush steppe plant communities to seeded monocultures of exotic grasses such as crested wheatgrass has a negative impact on antelope habitat and populations, particularly if they include fawning areas or winter range. Shrubs are an essential component of antelope habitat because they comprise a major portion of the diet and provide cover for fawns. Shrubs are particularly critical in winter ranges because they provide a food source above the snow. Shrubs can provide over 70 % of the usual winter diet and probably near 100% during severe winters (Kitchen and O'Gara 1982).

Livestock grazing in antelope winter range areas in the late summer or fall reduces the amount of forage available to antelope during winter. Intensive grazing in fawning areas can also reduce the forage available for antelope during this critical time of the year. Forbs are particularly important to antelope during the fawning period.

Improperly constructed fences can create significant migration barriers to antelope. Fences must be constructed to allow antelope to crawl under them.

Response: Comments noted.

Management Opportunites

Implementation fo the following recommendations are **necessary** to meet the IDFG management goals for pronghorn antelope:

Fences in antelope habitat must be designed to allow passage. Current BLM antelope passage fence design is adequate.

Sagebrush habitats in fawning areas and winter ranges should be maintained or improved. These areas should be avoided when planning seedings.

Implementation of the following recommendations will **contribute** to attainment of IDFG mange goals for pronghorn antelope:

General improvements in upland range condition that encourage a stable forb, grass, and shrub component in shrub steppe habitats will benefit antelope and reduce competition with livestock.

Late summer, fall, and winter cattle grazing of antelope winter ranges should be minimized to enhance winter forage abundance for antelope.

Response: Comments noted.

California Bighorn Sheep

IDFG Management Goas: a) Increase bighorn sheep herds in the Owyhee River drainage by 10%-20%; b) establish new population; c) increase harvest and d) provide more recreation.

Current Situation/Management Challenges

Four releases of California bighorn sheep from British Columbia into Owyhee county in the 1960's provided the nucleus of the herds along the Owyhee river and the Jacks Creek drainage. These herds grew steadily and by 1980 were will established. The Owyhee County bighorn populations have been used as a source for transplants for other areas of the state and nation.

Currently the size of the bighorn population in the ORA is lower than it has been in the recent past and is below carrying capacity. This drop in population size is due primarily to two factors: removal of sheep for transplant to other areas and a combination of drought and winter weather resulting in direct mortality and reduced production. Data collected in 1996 and 1997 indicates these populations are increasing.

Habitat factors known to limit bighorn sheep are the presence of domestic sheep in areas occupied by bighorns, competition with livestock, particularly on bighorn winter ranges and disturbance of lambing areas.

Bighorn sheep utilize the grass covered benches along the canyon rims of the Owyhee River. Isolation of these forage areas by rimrock reduces competition between livestock and bighorns. The potential of competition between livestock and bighorns may intensify adjacent to the canyons as numbers of either increase. Bighorn sheep and cattle have the highest potential for competition where cattle make substantial use of bighorn sheep winter range during the fall and winter.

The largest impediment to restoring bighorn sheep and to maintaining bighorn sheep populations is the potential for disease transmission from domestic sheep that graze near or within historical and occupied bighorn sheep ranges. Bighorn sheep and domestic sheep are not compatible when occupying the same ranges even when they are not using the area at the same time.

Managment Opportunites

Implementation of the following recommendations are **necessary** to meet IDFG management goals for California bighorn sheep:

Grazing allotments in the ORA in occupied or potential bighorn sheep habitat must be maintained as cattle allotments and not converted to domestic sheep grazing.

Implementation of the following recommendations will **contribute** to the attainment of the IDFG management goals:

Fall and winter grazing of bighorn winter ranges should occur only if it can be managed to enhance winter forage abundance for bighorns.

General improvements in upland range condition that include a stable forb, grass, and shrub component in shrub steppe habitats adjacent to canyon areas occupied by bighorns will benefit bighorns and reduce competition with livestock.

Response: Comments noted.

Rocky Mountain Elk

IDFG Management Goals: Maintain the size of elk herds in big game management units located in the ORA

Current Situation/Management Challenges

Huntable populations of elk were present in the ORA in the 1960's. The population was intentionally eliminated with liberal hunting seasons. In the 1990's elk populations became established again in the ORA as elk populations increased in that portion of Oregon immediately to the west. By 1994 populations reached huntable levels.

Management Opportunities

Implementation of the following recommendations are **necessary** to meet the IDFG management goals for elk:

Enhance public access to public lands in those portions of the ORA frequented by elk.

Implementation of the following recommendations will **contribute** the attainment of IDFG management goals:

General improvement in upland range condition that encourages a stable native grass, forb, and shrub component in shrub steppe habitats will benefit elk.

Response: Comments noted.

Sage Grouse

IDFG Management Goals: Double (approximately) sage grouse population levels in the next ten years. Establish Local Working Group (LWG) to identify problems and devise site specific solutions.

Current Situation/Mangement Challenges

Currently sage grouse populations in the ORA are low. Over the short term, depressed populations are most likely due to the effects of pronlonged drought. However there have been some significant habitat losses in portions of the ORA that have contributed to a long term decline in sage grouse. In spite of this the ORA still has large relatively intact sagebrush-grass communities which provide large expanses of sage grouse habitat.

Habitat factors limiting sage grouse are competition with livestock and loss of shrub steppe habitats due to juniper invasion, wildfire, and sagebrush eradication projects.

In the 1960's and 1970's, Idaho had large numbers of sage grouse and extensive livestock grazing. Livestock grazing and sage grouse habitat are compatible to a degree. However, in the drought conditons experienced from 1987 to 1994 it is believed that livestock grazing had a more serious impact on sage grouse habitats than in years of normal precipitation. Grazing can occur in sage grouse habitats provided that adequate nesting, brooding, and winter habitat are provided for in the ORA.

In 1996, in response to declining sage grouse populations statewide, sage grouse hunting opportunities were significantly reduced by the Fish and Game Commission. In mid-1997, the Commission adopted the Idaho Sage Grouse Management Plan. In this plan are statewide strategies as well as a number of habitat-related strategies specific to the Owyhee County area. The plan calls for establishment of Local Working Groups (LWG) to determine sage grouse habitat problems and devise solutions. These LWG's will be compsed of land managers and land owners, permittees, the IDFG, and sportsment.

Managment Opportunities

Implementation of the following recommendations are **necessary** to meet the IDFG management goals for sage grouse:

Maintain adequate nesting habitat (15-25% sagebrush canopy with an adequate residual herbaceous cover for nest concealment) in traditional nesting areas (within two miles of leks).

Maintain adequate early and late brood rearing habitat. Early brood rearing habitat has 15-25% sagebrush canopy and a healthy

Response: Comments noted.

Bill Gram
Idaho Department of Water Resources

I received copies of the *North and Middle Fork Owyhee Draft Subbasin Assessment and Total Maximum Daily Load* and *South Fork Owyhee River Draft Subbasin Assessment.* I requested David Blew, our planning team aquatic biologist, to review and provide comments he felt appropriate. **His review of the South Fork Owyhee assessment found no real problems**. He felt the assessment was a true reflection of the situation on the South Fork and agrees that a TMDL is not an appropriate method for addressing problems in that basin.

Response: Thank you for your comments.

Public Comments Received

North and Middle Fork Owyhee Draft SBA and TMDL

Commentator: Idaho Watersheds Project

1. The data and information used was insufficient for assessment of pollutant impacts and attainment of Idaho water quality standards.

- The biological and chemical data collected in 1999 is insufficient to dismiss sediment and bacteria as impairments to the beneficial uses.
- The current BURP protocol assessments are insufficient to determine compliance with sediment, cold water biota, and salmonid spawning standards.

Response:

In May 1995 the Ninth District Court ruled on a case brought against the EPA by the Idaho Sportsmen's Coalition, et al. charging the EPA to take steps toward eliminating pollution in Idaho's water bodies of pollution (Ninth District Court, Case Number C93-943WD, 1996). The findings by the Ninth District Court sided with the plaintiffs and specified the need to establish an expedient schedule for TMDL completion.

The initial 25 year schedule proposed by the EPA was found to be legally deficient because of its slow pace. The final ruling specifically stated that "a lack of precise information must not be a pretext for delay." The ruling also specifically stated that "water quality limited segments (WQLSs) are, by definition, water bodies that are not expected to attain applicable water quality standards through application of existing pollution controls." That, "The CWA requires that a TMDL must be proposed for every WQLS." Also, "WQLS lists are dynamic and . . . states may delist water bodies that attain standards.".

The Idaho Administrative Procedures Act (IDAPA 16.01.02.053) specifies that, when

determining whether a water body fully supports designated and existing beneficial uses, the IDEQ is to determine whether all of the applicable water quality standards are being achieved and whether a healthy, balanced biological community is present. It also specifies that the IDEQ is to utilize the Water Body Assessment Guidance (IDEQ, 1996) to assist in the assessment of beneficial use status. Revisions to the 1996 Guidance are underway but have not been completed and incorporated into the State rules at this time.

Idaho's process for meeting it's TMDL development schedule calls for a Subbasin Assessment (SBA) to be completed for the North and Middle Fork Owyhee hydrologic unit by December, 1999. One of the objectives of the SBA is to review the beneficial use support status on water bodies placed on the 303(d) list. This review is necessary because many of the stream segments listed on the 1996 303(d) list by the EPA were listed without the benefit of water quality data (evaluated), rather than listed based upon water quality data (monitored). For each of the listed water bodies the SBA evaluates whether:

(1) A TMDL for a listed pollutant is required;
(2) The water body should be removed from the 303(d) list; or
(3) Additional streams or pollutants should be placed on the 303(d) list and included in Idaho's TMDL completion schedule.

The SBA is an opportunity to consider water body specific data, more recent data, and any changes in water quality subsequent to the original listing of a water body. The short time frame provided little opportunity to conduct additional monitoring activities for the listed water bodies or those water bodies lacking established BURP monitoring sites. This SBA does examines all of the available data as of September 1999, including some collected by IDEQ specifically for this effort.

2. The final TMDL must include a commitment for an annual assessment of compliance with other areas of water quality which are not addressed under the draft TMDL, with a schedule for addressing needed changes in the TMDL.

Response:

Current IDEQ resources support Beneficial Use Reconnaissance Protocol (BURP) by monitoring water bodies once every five years. Please check with the appropriate BLM office for future and ongoing monitoring efforts in the North and Middle Fork Owyhee hydrologic unit.

Upon approval of this TMDL by EPA Region 10, a North and Middle Fork Owyhee TMDL Implementation Plan will be developed by designated supporting agencies and stakeholders. The Idaho Water Quality Standards directs appointed basin and watershed advisory groups (BAGs and WAGs) to provide public review on recommended actions to achieve the water quality targets listed in the North and Middle Fork Owyhee TMDL. This implementation plan is to be completed within eighteen months of final TMDL approval by EPA Region 10.

Implementation plans are an essential step in the process of restoring beneficial uses and assuring compliance with water quality criteria. An implementation plan is guided by an approved TMDL and provides details of actions needed to achieve load allocations, a schedule of those actions, and follow up monitoring to document progress or provide other desired data. Implementation plans specify the local actions that lead to the goal of full support of beneficial uses. The North and Middle Fork Owyhee TMDL Implementation Plan will aim to be the most appropriate plan for nonpoint solar energy pollution controls. The Plan will list activities which are to be implemented by land managers within the community to enhance the water quality of the North and Middle Fork Owyhee hydrologic unit. The Plan will include specific actions to meet the TMDL targets and a schedule for implementation of each activity. Important elements of this plan will be:

- A description of pollutant control actions.
- A schedule of actions with interim milestones.
- A discussion of reasonable assurance.
- A description of legal authorities for control actions.
- An estimate of when water quality standards will be attained.
- A monitoring and/or modeling plan to determine effectiveness of controls.
- Measurable interim milestones for water quality.
- A description of the process for revising the TMDL if milestones are not being met.

The development and writing of this plan is the charge of the local offices of designated agencies in Idaho's water quality law, with assistance from the IDEQ. Implementation plans are to be reviewed by the WAG and BAG for their approval, and submitted to IDEQ for certification that they will meet state water quality standards.

The Idaho Watershed Project is encouraged to participate in the formation of the WAG, and the development of the North and Middle Fork Owyhee TMDL Implementation Plan. By continuing to collaborate and cooperate with local landowners and designated land management agencies we can expedite the achievement of high water quality in this region.

3. Full support of the beneficial use "aesthetics" is not addressed.

Response:

The aesthetics use has no specific criteria associated with it and thus the general surface water quality criteria (IDAPA 16.01.02.200) are to protect aesthetics. These general criteria apply to all uses and it is assumed that aquatic life and recreation uses are more demanding than aesthetics, so that if they are met for the former they are met for the latter. The 1996 WBAG specifies that all Wildlife Habitat and Aesthetics Status beneficial uses equal "Full Support" (IDEQ, 1996; page 33).

4. Habitat degradation and flow alteration must be addressed in the TMDL implementation plan.

Response:

Flow and habitat alterations are not considered "pollutants" under the Clean Water Act requiring "loading limits" to be established under a TMDL. The North and Middle Fork Owyhee SBA and Temperature TMDL evaluated whether pollutant load reductions are required for the listed pollutants (i.e., temperature, sediment and for the North Fork Owyhee River, bacteria). In order to attain beneficial use support within some water bodies, flow and habitat alterations might need to be considered. The IDEQ suggests that the best place to address these needs is in the TMDL Implementation Plan.

5. State temperature criteria and TMDLs must protect all life stages of salmonids.

Response:

State of Idaho TMDL documents are water quality management plans established to attain current water quality standards and manage pollutants that are found to impair beneficial uses. Current state temperature criteria for salmonid spawning and cold water biota was originally set to protect all life stages of salmonids. These criteria were developed per EPA guidance at the time and met with EPA approval. With the benefit of twenty years of additional knowledge and experience, these criteria are now being questioned regionally and considered for refinement. The outcome of that reexamination, and the establishment of new criteria, is likely several years away.

Revisions to current water quality standards are generally done through a public process known as "Negotiated Rule Making Process." This process is conducted once every three years. The Idaho Conservation League is encouraged to provide input and suggestions to the Negotiated Rule Making Committee regarding its concerns over salmonid temperature requirements.

6. A lack of data to evaluate whether excess sedimentation is occurring does not mean that a sediment TMDL is not required.

Idaho's numeric sediment standard for cold water biota place limits for water column turbidity to 25 NTU for over a ten-day period or 50 NTU at any time. All of the available turbidity data for water bodies within the North and Middle Fork Owyhee hydrologic unit are less than 25 NTU.

Idaho's narrative water quality standard for sediment relies on an assessment of beneficial use impairment due to an excessive amount of sediment. This assessment is predominately based on an examination of existing beneficial uses such as salmonid spawning and rearing, or abundance and assembledges of macroinvertebrates.

In the case of the water bodies located within the North and Middle Fork Owyhee hydrologic unit, salmonid spawning and rearing occurs in each water body examined. Also, all of the recent and

historical macroinvertebrate data for each of the listed stream segments meet or exceed the State of Idaho's 1996 Water Body Assessment Guidance for macroinvertebrates (i.e., a score greater than 3.5).

A qualitative look at macroinvertebrate samples collected during the summer of 1999 shows that, while most of the species present tolerate disturbances, most of the samples have species that are generally associated with good water quality conditions (Appendix C). An exception to this generalized statement is that cold water biota indicator species are absent within five of the seven water bodies sampled (i.e., the samples collected for North Fork Owyhee, Cabin, Corral, Pleasant Valley, and Squaw Creeks). However, historical macroinvertebrate data from the North Fork Owyhee and Corral Creek do contain cold water biota indicator species. Therefore, the only streams where cold water biota indicator species have not been found are, Cabin Creek; Pleasant Valley Creek; and Squaw Creek.

The lack of cold water biota indicator species within the 1999 samples collected from the water bodies located within the North and Middle Fork Owyhee hydrolgic unit, however, may be due to a deviation from normal IDEQ protocol used in the collection of these samples. For example, rather that collecting three samples and composite these into one jar for analysis, only one sample was collected from each water body. Due to this and other sampling considerations, while the presence of cold water biota indicator species provides a definite "positive" result in both the 1999 and the historical data, the absence of cold water biota indicator species in a given sample does not provide a definite "negative" result.

Additionally, it is important to keep in mind that the cold water biota indicator species list is a draft list only. The formation of this list has been a dynamic process as additional information was obtained. And, it is possible that the current list does not contain all of the possible cold water biota indicator species found in this ecoregion.

An examination of the available surface substrate data shows that portions of seven of the nine water bodies contain riffles with around 30% fines. The two water bodies that do not show these low values for percent fines are Corral Creek and Big Spring Creek. However, both of these streams support redband trout populations and contain cold water biota indicator species of macroinvertebrates. Please note that the current state water quality standards for sediment do not specify minimum requirements for surface substrate conditions. Also, neither of these streams has been identified as water quality limited due to sediment impacts (i.e., they are not listed on Idaho's 1998 303(d) list for sediment).

In summary, a review of the biological or chemical sediment data available for the North and Middle Fork Owyhee hydrologic unit shows no violoations of applicable water quality standards for sediment and shows no impairments to the current biological community according to the 1996 Water Body Assessment Guidance (IDEQ, 1996). Therefore, the IDEQ does not recommend any sediment load reductions at this time. However, under the Idaho water quality standards for antidegradation (IDAPA 16.01.02.051), the water quality within these drainages must remain adequate to protect the existing uses fully. Therefore there can be no increases to the current sediment load within these drainages in amounts that would impair the existing uses.

7. The Proper Functioning Condition assessment of "functional - at risk" should require action to facilitate a higher function rating.

Response:

While PFC analysis is highly subjective, the determination of "functional - at risk" does cause the BLM to revise the grazing management system within the vicinity in order to eventually achieve a rating of "proper functioning condition" for 85% of the stream miles under the preferred alternative (Alternative E) in the Proposed Owyhee Resources Management Plan (1999).

8. Why were load reductions for bacteria not established after initial indication that state bacteria criteria were exceeded during the month of August 1999?

Response:

An error by the State Laboratory Services rendered the last sample of the five-sample August monthly geometric mean analysis unusable. Therefore, additional samples were collected in September in order to conduct this assessment. While the August samples did show a trend towards criteria exceedance for fecal coliform according to the five-sample geometric mean, the samples collected in September did not show the same trend. If they had, then a load reduction for fecal coliform would have been proposed. Neither the Oregon standards for E. coli nor the proposed E. coli standards for the State of Idaho showed any trend toward standard exceedances.

However, even though no bacteria load reductions are proposed at this time, under the Idaho water quality standards for antidegradation (IDAPA 16.01.02.051), the water quality within these drainages must remain adequate to protect the existing uses fully. Therefore, there can be no increases to the current bacteria load within these drainages in amounts that would impair the existing uses.

9. Withdraw the current Draft TMDL and resubmit a new document that addresses all areas of exceedances and a more thorough assessment of conditions.

Response:

Your comment has been noted. Please see the response to your first comment regarding the court ordered time frame for document completion.

10. The development of an implementation plan should be accelerated and made part of the final TMDL.

Response:

Pursuant to the federal district court order in 1996 (see response to comment #1), the U.S. Environmental Protection Agency (EPA) issued a §303(d) list for Idaho, which identified 962 water bodies requiring TMDLs. The EPA and the IDEQ also submitted a schedule to the court for developing all required TMDLs on the 1996 §303(d) list within eight years. In the schedule, WQL water bodies are grouped by sub-basin, such that all TMDLs within the sub-basin will be

developed at the same time.

In 1998, five water bodies within the North and Middle Fork Owyhee River basins were classified as water quality limited due to excessive sediment, high temperatures, and flow modification under §303(d) of the Clean Water Act[1]. These water bodies include, Middle Fork Owyhee River; Squaw Creek; Noon Creek; Juniper Creek; and Pleasant Valley Creek. The North Fork Owyhee River was classified as water quality limited due to excessive bacteria. It is expected that the EPA will add two water bodies to this 303(d) list, Cabin and Corral Creeks, along with the North Fork Owyhee, for temperature criteria violations based on available stream temperature data (Woodruff, 1999).

The TMDL development process is currently divided into three parts; 1) development of a sub-basin assessment; 2) development of water quality targets, loading estimates, assimilative capacity, and allocations; and 3) development of an implementation plan. Steps 1 and 2 are considered to be the TMDL required for EPA submittal and approval under the eight year development schedule. Step 3, the implementation plan, is to be developed within 18 months of EPA approval of Steps 1 and 2.

11. Idaho's Best Management Practices for agricultural non-point source should not be entirely voluntary.

State of Idaho TMDL documents are water quality management plans established to attain current water quality standards and manage pollutants that are found to impair beneficial uses. Current state standards for agricultural practices specify that BMPs for agricultural practices are voluntary. These criteria were developed per EPA guidance at the time and met with EPA approval. Revisions to current water quality standards are generally done through a public process known as "Negotiated Rule Making Process." This process is conducted once every three years. The Idaho Watershed Project is encouraged to provide input and suggestions to the Negotiated Rule Making Committee regarding its concerns over voluntary BMPs for agriculutural practices.

Nonpoint solar energy source reductions listed in the North and Middle Fork Owyhee TMDL will be achieved through the combined authorities the State of Idaho possesses within the Idaho Nonpoint Source Management Program and commitments the community makes in the future North and Middle Fork Owyhee Hydrologic Unit Implementation Plan. Section 319 of the Federal Clean Water Act requires each state to submit to EPA a management plan for controlling pollution from nonpoint sources to waters of the state. The 319 Plan must do the following: identify programs to achieve implementation of the best management practices (BMPs); outline schedules containing annual milestones for utilization of the program implementation methods and for implementation of BMPs; obtain certification by the State Attorney General which states that

[1]Note that flow alteration is not an identified pollutant under § 304(a)(2)(D) of the CWA. Therefore, the EPA would take no action to either approve or disapprove a TMDL submitted for flow alteration (US-EPA, 1999).

adequate authorities exist to implement the plan; and provide a listing of available funding sources for these programs. The current Idaho Nonpoint Source Management Program has been approved by the EPA as meeting the intent of Section 319 of the Clean Water Act.

The Idaho Nonpoint Source Management Plan and the Idaho Water Quality Standards require that if water quality monitoring indicates water quality standards are not met due to nonpoint source impacts, even with the use of current BMPs, the practices will be evaluated and modified as necessary by the appropriate agencies in accordance with the provisions of the Administrative Procedure Act. If necessary, injunctive or other judicial relief may be initiated against the operator of a nonpoint source activity in accordance with the Director's authorities provided in Section 39-108, Idaho Code (IDAPA 16.01.02.350).

As a designated "Responsible Land Management Agency" the Bureau of Land Management has entered into a Memorandum of Understanding (MOU) between the EPA and various State of Idaho agencies (IDHW, 1993). Within the Forestry Practices Appendix to this MOU, federal agencies have agreed to comply with the water quality protection provisions of the Idaho Forest Practices Act Rules and Regulations. Federal grazing regulations (43 CFR 4180) require that the BLM determine if grazing related management practices (grazing systems, permit/lease terms and conditions and range improvements) are achieving the Idaho Standards for Rangeland Health or are making significant progress toward their achievement and conform with the Guidelines for Livestock Grazing Management. Additional federal agency responsibilities are also defined in 40 CFR Part 130 as needing to comply with State requirements to control water pollution to the same extent as private entities.

Required pollutant load reductions as established by a TMDL, combined with an implementation plan, set the sideboards for a general pollution control strategy and an expected time frame in which water quality standards will be met. Again, the Idaho Watershed Project is encouraged to participate in the formation of the WAG, the development of the North and Middle Fork Owyhee TMDL Implementation Plan, and to continue to collaborate and to cooperate with local landowners and designated land management agencies in the achievement of high water quality in this region.

ADDITIONAL COMMENTS ON THE NORTH, SOUTH AND MIDDLE FORKS OF THE OWYHEE RIVER DRAFT SBA/ TMDLS

In addition to the lengthier comments mailed to you earlier today on these two draft TMDLs, Idaho Watersheds Project would like to incorporate comments IWP made earlier this fall in regard to the draft TMDLs for the Lemhi River and tributaries about the inadequacy of current Idaho administration of Clean Water Act requirements. I have enclosed copies of those comments for your review.

In particular, IWP is concerned that Idaho's Best Management Practices (BMPs) for agricultural non-point source pollution are entirely voluntary in nature. Because the main source of temperature pollution, sedimentation, stream degradation, and bacterial contamination on the North, Middle, and South Forks of the Owyhee River is a direct consequence of public lands

ranching, under current law, it would appear impossible to have any TMDL met at any time in the future as long as BMPs remain voluntary. Until this loop hole is changed to require BMPs as part of any implementation plan, no TMDL proposed of these watersheds will have any meaning whatsoever.

Response: Comments noted.

In general, Idaho Watersheds Project is pleased with the level of information and the proposal for TMDLs on the Lemhi River and the identified tributary streams which are listed in the 303(d) list. As far as the proposal goes, it is a good start. However, IWP is interested in proposing some improvements not only in the process of developing the TMDLs but also in the subsequent necessary production of management plans and recovery of water quality to meet the anti-degradation standards to support all beneficial uses.

On page 1 of the Executive Summary it states: "altered flow conditions resulting from diversion of surface waters for irrigation have eliminated migratory components of resident fish species and elevated risk to isolated fish populations. Water rights for irrigation are legally protected property rights of state law which will not be addressed as part of the TMDL, however the wide disconnection of tributaries from the Lemhi River increases the importance of the recovery of beneficial use support and salmonid spawning within the watershed." IWP is concerned that a major cause of the lack of support for all beneficial uses in tributary steams and the main Lemhi River is not being addressed in this TMDL. While DEQ has developed a policy that states "habitat modification and flow alteration, which may adversely affect beneficial uses, are not pollutants under section 303(d) of the Clean Water Act," this conclusion is in disagreement with advisory committee report to the Environmental Protection Agency (EPA) which states that there are seven necessary components of the TMDL implementation and development process which include allocation of pollution loads including assignment of control responsibility among sources of impairments. A clear "source of impairment" for the various failures to meet all beneficial uses in the Lemhi River watershed is the de-watering of tributary streams by over-allocated irrigation diversions and stock water diversions. The DEQ has also dismissed any analysis of the Mill Creek watershed in the development if TMDLs because "presence is given to legal water rights, over any water quality issue resulting from flow alteration thus a TMDL would not be meaningful for flow alteration."

Response: Comments are not directed at the South Fork SBA

This exclusion of deterring and flow alteration as well as unscreened headgates and diversions will only result in future legal action which will undermine Idaho's independent claims that water diversion at any level is permissible without regard to its impact on beneficial uses pursuant to the Clean Water Act. As a consequence, IWP strongly recommends that a more thorough evaluation be made in the final development of TMDLs for deterring tributaries as well as their affect on main stream fecal coliform loading problems in your final document.

Response: Comments are not directed at the South Fork SBA

The proposed percentage reductions in sediment for the tributary streams and for fecal coliform in the main Lemhi River appear to be appropriate; however DEQ must also assess the time frame for achieving the TMDL goal and the potential Best Management Practices or other mandatory management actions on federally managed lands which will result in achieving the TMDL. Habitat considerations relating to the functioning condition of the watershed both in the mainstream and the tributaries, as well as land use practices such as livestock grazing or feeding which result in the introduction of bacteria or other wastes into waters on the state, need to be analyzed in setting a final TMDL.

Response: Comments are not directed at the South Fork SBA

IWP is pleased to see that the Idaho Falls DEQ office is not proposing to permit degradation of currently compliant waters in the Lemhi Basin watershed in order to achieve some improvement on areas already listed on the 303(d) list. Such a proposal has unfortunately been developed for the TMDL proposal for the Middle Fork of the Payette River.

Response: Comments are not directed at the South Fork SBA

IWP is also of the opinion that in the future additional streams within the Lemhi River watershed as well as the mainstream of the river will be added to the 303(d) list for failure to meet other anti-degradation criteria for beneficial uses other than those currently listed. The whole watershed has been deeply degraded and continues to be suffering the consequences of inappropriate land use practices everywhere. Therefore, it would seem extremely important that the DEQ establish specific time-certain objectives for meeting these particular TMDLs addressed in this document. Without the certainty provided by such a timetable, current practices which cause the identified degradation, and other degradation, and other degradation of water quality which remains unidentified solely because of the lack of data, will not be charged.

Response: Comments are not directed at the South Fork SBA

Thank you for the opportunity to comment; IWP looks forward to receiving the final copy of the TMDLs with corrections as suggested.

This letter constitutes the comments of Idaho Watershed Project in regard to the Draft Subbasin Assessment and Total Maximum Daily Load for the North and Middle Fork Owyhee River watersheds.

IWP is concerned that the draft document is deficient in dismissing all but temperature violations

of Idaho state water quality standards. Sedimentation, flow modification, and bacterial loading in violation of state water quality standards exists on these tributaries of the Owyhee River and their own tributaries such as Squaw Creek; Noon Creek; Juniper Creek, Pleasant Valley Creek, Cabin Creek and Corral Creek. The biological and chemical data collected by DEQ during 1999 does not appear to be sufficient to result in the dismissal of sediment and bacteria levels as a violation of state water quality standards. IWP has also objected in the past to the current protocol for BURP assessments of aquatic life as sufficient to determine compliance for various aspects of water quality standards such as sediment load, cold water biota, and salmonid spawning. It is an obligation of the DEQ to develop adequate information to determine that a reduction in sediment load or bacteria condition is necessary as part of this TMDL development pursuant to the Clean Water Act. The document indicates a cursory commitment to further analysis of these steams to assess bacterial and sediment loading as well as salmon spawning. Any TMDL finalized as part of this process must include a commitment of an annual assessment of compliance with other areas of water quality which are not addressed under the draft TMDL with a schedule for addressing needed changes in the TMDL. IWP is concerned that the DEQ will delay necessary changes both within any implementation plan and also as an amendment to the TMDL for these streams. IWP also notes that the DEQ has failed to address the issue of aesthetics as a beneficial use of these streams in analyzing the need for TMDLs the protect that beneficial use. IWP also objects to the failure to address habitat degradation and altered flow conditions on all the streams which constitute the North and Middle Fork watersheds. A recent advisory committee report to the Environmental Protection Agency (EPA) states that there are seven necessary components of the TMDL implementation and development process which include allocation of pollution loads including assignment of control responsibility among sources of impairments. A clear “source of impairment” for he various violations of beneficial achievement in the North and Middle Fork watersheds is flow alteration and habitat degradation either through diversions o f various sorts or heavy ongoing annual impacts from livestock use of this area. IWP opposes the DEQ’s acceptance of a temperature criteria protecting a single salmonid life stage (spawning) as adequate. All stages of salmonid life must be protected if this beneficial use is to continue to exist and recover in these streams. The DEQ must address the reality that sediment within these stream systems may be impairing beneficial uses of salmon spawning and cold water biota. If there is impairment occurring, the DEQ must address it at this time within the TMDL document. Because of the inadequate assessment for excess sedimentation, the DEQ cannot dismiss sedimentation without a necessary TMDL at this time. The Subbasin Assessment states that percent finds in these stream system are “high” yet the DEQ includes no TMDL to address sedimentation. Appendix C of the document undermines the DEQ’s acceptance of a conclusion that their macro vertebrate surveys indicate conformance with state water quality standards for sediment. This BURP process as indicated in Appendix C has provided sufficient information to indicate that on many tributaries no cold water organisms were found. IWP is also opposed to the use of Proper Functioning Condition Analysis of streams to confirm compliance with sediment loading since this is a non-scientific process and streams placed in a Functioning At Risk category do not appear to require any action by the DEQ to facilitate a higher function rating.

IWP is concerned that analysis of bacterial contamination in violation of water quality standards is also inadequate. Even though the September 2, 1999 update for bacterial analysis states that "so far, data indicates we are exceeding state criteria," the DEQ proposes no TMDL for bacterial contamination of these streams.

The failure of DEQ to assess and address TMDLs for aesthetically impaired streams is especially destructive of this process. IWP and its members understand that many of these streams are severely impaired aesthetically because of the extraordinary degradation by livestock impacts including vegetation destruction, stream bank trampling, cattle wastes on land and in water, and destruction of fisheries. In addition, high temperature violations also create opportunities for algal mats to form and produce noisome odors and revolting visual contamination.

IWP request that this Draft TMDL be withdrawn and resubmitted to the public as an additional draft with all areas of exceedence addressed and with more thorough assessments of conditions. Finally, IWP is concerned that the development of an implementation plan for these water be accelerated and made part of a final TMDL. For example, it is crucial that some chance in management be implemented in 2000 in order to start to reverse the ongoing degradation of these watersheds with which we are so familiar.

COMMENTS ON SOUTH FORK OF THE OWYHEE RIVER DRAFT SBA/TMDL

IWP provides these additional comments on the South Fork Owyhee SBA/TMDL.

First, IWP incorporates into the South Fork comments all applicable general comments from the North and Middle Fork Owyhee comments above. It is especially important in this regard that DEQ actually address the problems on the South Fork instead if merely deferring development of TMDLs and proposed development of an implementation plan to changes which may or may not occur upstream in Nevada. IWP is fully aware that some of the major problems on the South Fork on the Owyhee River watershed in Idaho are a direct result of abusive land management practice and nonpoint source pollution in Nevada especially from mismanaged livestock grazing. The DEQ must help establish the South Fork as a 303(d) listed stream in Oregon, Idaho, and Nevada in order to recover this remarkably degraded watershed.

Response: It is not within the scope of this document to assess the landuse practices within the State of Nevada. Since the South Fork Owyhee River is Interstate waters, it will the responsibility of the United States Environmental Protection Agency (EPA) to initiate dialogue with the State of Nevada. If the State of Idaho can offer assistance, this option will be explored.

Since sediment is clearly a huge problem in the whole South Fork watershed, DEQ must address

this problem. IWP is especially concerned that even though the DEQ acknowledges the absence of salmon species such as Redband trout in the South Fork, it is no action of any kind to recover this beneficial use. IWP also objects to the lack of any analysis of the condition or contribution to nonpoint source degradation of the South Fork by Spring Creek and the East Little Owyhee River . IWP notes that there is a major diversion of the waters of the South Fork upstream of the 45 Ranch on public lands and that at low water, this diversion can result in the virtual drying up of the South Fork. This kind of flow alteration and habitat degradation creates a severe incapability of the South Fork of the Owyhee River to meet its allocated beneficial uses. The Draft SBA/ TMDL fails to address this diversion in any way.

Response: The limited sediment information collected did not indicate that sediments were impairing the beneficial uses or that State of Idaho water quality standards were exceeded. Since Spring Creek is intermittent, it was not assessed as were other intermittent streams within the State of Idaho.

Response: During no periods during the 1999 monitoring effort, was it ever noted that the diversion structure at the 45 Ranch completely de-watered the South Fork Owyhee River. The State of Idaho, Division of Environmental Quality (DEQ), does not believe that stream alteration is a pollutant of concern that can be assessed through the TMDL process.

The DEQ has completely inadequate information on bacterial contamination of the South Fork and its tributaries, especially that caused by cattle wastes. This needs to be rectified before any final TMDL is issued.

Response: As stated in the document (Sec. 2.3.8.) Bacteria samples were collected during the 1999 monitoring effort. Of the five samples collected, none exceeded State water quality standards for either primary or secondary contact recreation. During the 1999 monitoring, all tributaries were intermittent, which does not allow for adequate evaluation of bacteria contamination.

Patricia Klahr, Director of Science and Stewardship
The Nature Conservancy

Having reviewed the Assessment I provide the following comments:

1. With 84% of the South Fork Owyhee River watershed in Nevada, the Assessment should attempt to do a more thorough analysis of the status and condition of the river in Nevada. For instance, how many water withdrawals occur in Nevada from the South Fork Owyhee, and what is the total amount of water withdrawn from the South Fork Owyhee drainage in Nevada?

   Response: It was not within the scope of this document to determine landuse practices in

Nevada, but to determine the support status of beneficial uses in Idaho. Further evaluation of land use practices within the entire watershed will be addressed by the State of Nevada.

2. The temperature standard is exceeded as the South Fork Owyhee River enters Idaho. Again, an analysis of what factors within Nevada may be contributing to this situation should be attempted in this assessment.

   Response: It was not within the scope of this document to determine landuse practices in Nevada, but to determine the support status of beneficial uses in Idaho. Further evaluation of land use practices within the entire watershed will be addressed in an assessment by the State of Nevada. Temperature load capacity and allocations have been incorporated into the document. Load allocations have been assigned to waters as it enters the State of Idaho.

3. The Assessment lists the causes of exceedence of temperature standards as solar radiation, ambient air temperature, snowmelt contribution, and other conditions including those influenced by man, such as river morphology and shading. The Assessment makes no mention of the effect of diverting large portions of the flow from the South Fork Owyhee River in Nevada for irrigating of hayfields. These diversions occur in wide, shallow ditches where solar heating is accelerated, prior to this water returning to the river. It seems an accounting for this potential impact should be addressed.

   Response: It was not within the scope of this document to determine landuse practices in Nevada, but to determine the support status of beneficial uses in Idaho. Further evaluation of land use practices within the entire watershed will be by the State of Nevada. Temperature load capacity and allocations have been incorporated into the document. Load allocations have been assigned to water as it enters the State of Idaho.

4. The Assessment should contain a detailed description of the physical and morphological characteristics of the sample sites (the El Paso site and the 45 Ranch) such as river depth, width, substrate type, surround land uses, etc. at each site. How are potential local impacts at the sites, such as between the 45 Ranch (which is an operating cattle ranch), and the remote El Paso Site accounted for?

   Response: Some descriptions of the differing land use practices, are noted in Section 2.7.2 and the impacts to river bank erosion is noted. Further evaluation of land use management and application of BMP will be addressed in the Implementation Plan.

Some discussions on current morphology conditions are stated in 2.7.1. and 2.7.2. It is recognized that more information on river morphology is needed, but the limited time to develop the SBA-TMDL did not allow for more data collection.

P.15 Finally, although we all have felt some "rapture" when in the canyon country of the South Fork Owyhee, I believe the Assessment meant to note that raptors frequent the canyon.

Response: Comment noted, appropriate changes will be made.

Craig Gerhke
The Wilderness Society

Please accept these comments on the draft South Fork Owyhee SBA/TMDL and the draft North Fork and Middle Fork Owyhee SBA/TMDL from the Wilderness Society.

The Wilderness Society supports the comments submitted by the Idaho Conservation League regarding these matters. The Wilderness Society believes that IDEQ must take stronger measures to protect the beneficial uses of these specific water bodies.

Please keep this office informed of further developments regarding these issues.

Response: See responses addressed to the Idaho Conservation League comments.